## **BRACHYSOMUS HIRTUS (COL.: CURCULIONIDAE) REDISCOVERED IN SURREY, WITH A NOTE ON ITS ECOLOGY**

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IN BRITAIN, *Brachysomus hirtus* (Boheman) is a rare beetle which has been recorded on very few occasions in recent times. Some years ago, my friend Mr A.A. Allen gave me two representative specimens which had been taken by the late Philip Harwood many years ago and were labelled Westerham. They lack dates but Mr Allen tells me that the specimens were probably taken in the early 1920s.

Having never found the species, I wondered one day if it could still be found in this locality. The habitat given in Fowler (1891) is "chalk hill sides, in moss etc." and reference to the O.S. map suggested the southfacing chalk escarpment about a mile to the north of Westerham as a good place to start looking. My wife and I went there on 6.iv.1990. Presumably because of the dryness of the preceding year, there was little moss to be found on the open chalk slopes but we found a plentiful supply on the ground a few metres inside a dense thicket lower down the escarpment. About 30 handfuls of moss mixed with dead leaves, small dead twigs and a little granular surface soil were shaken in a bag-sieve and the sievings brought home and put into a Winkler extractor.

Twenty-four hours later, two examples of *B. hirtus* appeared in the extractor and another four appeared after a further 24 hours. Subsequent visits to the spot with colleagues during the next few weeks showed that the beetle was very plentiful at the site with a minimum estimated population in one part of the area of 4 - 8 specimens per square metre. Another lot of sievings taken on 30.i.1991 contained further examples of the beetle.

The town of Westerham is in Kent near the western county boundary but, just to the north of the town, the county boundary runs to the northeast and the part of the escarpment where we found the beetle was in Surrey. I have found only one other certain Surrey record, that of Champion (cited by Fowler, 1891) who took a single specimen last century at Caterham. W.E. Sharp (cited Fowler & Donisthorpe, 1913) took the species at Westerham prior to Harwood's captures and it may be that Harwood was directed to his Westerham site by this reference. If, as seems likely, these two collectors found their specimens from the chalk slopes to the north of the town, the record could apply to Surrey or to Kent as the county boundary runs through the chalk escarpment at this point.

Elsewhere the species has been recorded from Arundel, West Sussex (Stevens, cited Fowler, 1891), Cobham Park (Walker, 1890) and Chatham (Walker, 1898), Kent, Southampton, Hampshire (Walton cited Fowler, 1891), Chesam, Buckinghamshire (Elliman, 1899), Henley-on-Thames (Power cited Fowler, 1891) and the Chilterns (Woodroffe, 1966),

Oxfordshire and Gumley, Leicestershire (Mathews cited Fowler & Donisthorpe, 1913).

While the habitat — chalky hillsides — given by Fowler is literally correct, many authors have stated or implied that the beetle occurs in or at the edge of wooded areas on chalk, as in the present instance, rather than on open, grassy chalk slopes. Walker (1898) recorded finding a number near Chatham by shaking a small hornbeam branch and from dry leaves "accumulated round the stumps of underwood" at the edge of a coppice and he cited Bedel (Faune de Coléoptères du bassin de la Seine, 6, 237) finding the species in dead leaves in woods. Elliman (1899) reported that he had found three specimens by sifting dead leaves in a wood at Chesham in 1896 and many others by the same technique two years later. He found the beetle was distributed "for a very considerable distance along the border of this wood which is situated on chalk and has a southern aspect;." Woodroffe (1966) found one example each of *B. hirtus* and *B. echinatus* (Bonsdorf) in litter under a hawthorn bush in an area of scrubby chalk grassland in Oxfordshire.

In this country, the beetle has traditionally been linked to primrose (Primula vulgaris L.) though the evidence is circumstantial and the beetle may well prove to be a root feeder. Pellerin (1870) described how he found a specimen in a bunch of primroses tied up with moss which he had purchased for sixpence. Interestingly, Fowler (1891) also refers to a specimen found in a primrose root bought in a London market giving the finder's name as Mr Douglas. Walker (1898) reported that primroses were plentiful where he found the beetle. Where we found the beetle at Westerham, the ground cover was mainly moss, mixed with dead leaves and small twigs. The few higher plants present (Glechoma hederacea L. Veronica chamaedrys L. and small shoots of Rubus fructicosus) were estimated to provide less than 5% of ground cover. There were no signs of primrose plants though there were cowslips (Primula veris L.) on the open slope above the thicket. The latter comrpised mainly hawthorn (Crataegus monogyna (Jacq.), dogwood (Thelycrania sanguinea (L.) Four.), sallow (Salix spp.) and clematis (Clematis vitalba L.).

As far as the time of appearance of adults goes, the majority of records have been in the colder part of the year, i.e. from late October (Walker, 1898) to April (Pellerin, 1870; present findings). There is a single record for the latter part of May (Woodroffe, 1966) and Walker (1890) swept two examples on a "very hot, damp evening in July, along with *P. echinatus.*"

*B. hirtus* is readily distinguished from *B. echinatus* on the characters given by Joy (1932). In the field, a hand lens reveals the pronotum of *hirtus* to be uniformly dark grey whereas in *echinatus* the pronotum has an obvious band of the light coloured scales at the side. Curiously, Fowler (1891) ascribes the light scales at the sides of the pronotum in error to *hirtus* though his descriptions are otherwise correct.

## References

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Notes on the voltinism of *Hylaea fasciaria* L., Barred Red (Lep.: Geometridae)

A single male *H. fasciaria* was caught in the Rothamsted Insect Survey (R.I.S.) light trap at Beinn Eighe, Wester Ross (Site No. 350, OS grid ref. NH 024 629), on 24.x.1990. The normal flight period at this site is from mid-June to early August. In 1990 it was recorded from 13th June to 3rd August.

Skinner, B. (Colour Identification Guide to the Moths of the British Isles, Viking, Harmondsworth, 1984) and others state that H. fasciaria is univoltine, flying from mid-June to early August. However, South, R. (Moths of the British Isles, Warne, London 1961) states that it is sometimes found in September, as well as June and July, suggesting a partial second emergence in some years. Reference to the R.I.S. database, in which there are records of 462 individuals of H. fasciaria, supports South's comments and reveals the following information on the voltinism of this species.

The main flight period is from early June to late July or early August at nearly all sites where this species occurs. Records of second emergences are usually rare and have been noted at Fort Augustus, Inverness (Site No. 49, OS grid ref. NH 366 092) on 22.x.1978; Elgin I, Morayshire (Site No. 58, OS grid ref. NJ 160 636) on 10.x.1979; Elgin II, Morayshire (Site No. 457, OS grid ref. NJ 164 635) on 13.x.1986, and Stratfield Mortimer, Berkshire (Site No. 16, OS grid ref. SU 650 645) on 9 and 14.x.1975. Individuals of a second emergence have been recorded at a site in more than one year only at Kielder, Northumberland (Site No. 296, OS grid ref. NY 632 936) in 1985 and 1986 and Santon Downham, Suffolk (Site No. 259, OS grid ref. TL 816 876) in 1975, 1979, 1983 and 1986.

These records show that *H. fasciaria* occasionally produces a partial second adult generation but the frequency of this occurrence is difficult to assess. However, the species is relatively common at five of the seven sites mentioned above. This may suggest that recording a partial second